State of Utah

JON M. HUNTSMAN, JR.
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Lieutenant Governor

Department of Administrative Services
D'ARCY DIXON PIGNANELLI
Executive Director

Division of Facilities Construction and Management
F. KEITH STEPAN
Director

ADDENDUM

Date:	22 August 2005
To:	Contractors
From:	Vic Middleton, Program Director, DFCM
Reference:	Salt Lake Community College Redwood Road Campus Signage DFCM Project No. 05019660
Subject:	**Addendum No. 1**

Pages		
	Addendum	1 page
	Architectural Addendum	26 pages
	Total	**27 pages**

Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

1.1.1 Referenced the attached Architectural Addendum

End of Addendum #1

Monday, August 22, 2005

PROJECT:

SALT LAKE COMMUNITY COLLEGE
REDWOOD ROAD CAMPUS
NEW ENTRANCE SIGNAGE

4600 SOUTH REDWOOD ROAD
SALT LAKE CITY, UTAH 84112
D.F.C.M. PROJECT #05019660

ADDENDUM NO. 1

The Architect, as a clarification and addition, issues the data included herein to drawings, specifications, and contract documents relative to the above project. Except as effected by data herein, all other parts of the Contract Documents shall remain in full force and effect as issued by the Architect, ***July 18, 2005*** (This Date Applies to all Project Bid Documents). It shall be the sole responsibility of the bidder to appropriately disseminate this data to all concerned prior to the assigned bid date and time. Receipt of the addendum shall be recorded by the bidder in the appropriate space on the proposal form included in the Contract Documents.

I. GENERAL ITEMS

Item #1 At the mandatory pre-bid meeting project booklets were issued with some sections missing. Bidders were instructed to go to the DFCM web site to obtain a complete manual and drawings.

II. ARCHITECTURAL SPECIFICATION ITEMS

Item #1 **Section 10437, Paragraph 1.4.C.3.C.**
Add the following to the existing sentence
"...within 24 hours of assessment of problem."

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III. ARCHITECTURAL DRAWING ITEMS

None

IV. ELECTRICAL SPECIFICATION ITEMS

Item #1 See attached

V. ELECTRICAL DRAWINGS ITEMS

Item #1 See attached

INDEX

DIVISION 16 - ELECTRICAL WORK

SECTION 16000 - GENERAL PROVISIONS, ELECTRICAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplemental General Conditions and Division 1 Specification Sections apply to work of this section and all other Division 16 specification sections.

B. This section applies to all Division 16 specification sections.

1.2 SUMMARY

A. This section includes general administrative and procedural requirements for electrical installations to expand the requirements of the General Conditions and Division 1 Specification Sections.

1.3 STANDARDS

A. The following industry standards are considered minimum requirements for electrical work and are made a part of the contract documents:

1. National Electrical Code, 2002 Edition (NEC)
2. Electrical Ordinances of Local Governing Authority
3. Utah State Fire Marshal's Rules and Regulations
4. International Building Code
5. International Fire Code
6. Underwriters Laboratories (UL) Standards
7. American National Standards Institute (ANSI)
8. National Electrical Manufacturer's Association (NEMA)
9. National Fire Protection Association (NFPA) Standards
10. Regulations of American Standards Association

B. If any conflict occurs between these rules and the contract documents or between the plans and specifications, notify the Architect promptly in writing. Do not proceed with any work in conflict until a solution is approved in writing by the Architect.

1.4 WORKMANSHIP

A. All Electrical Work of any nature shall be performed by qualified electricians, experienced in the type of work to be performed and licensed with the State of Utah. Electricians shall show their license upon request of the Owner, Architect and/or their representatives.

1.5 ELECTRICAL WORK INCLUDED

A. The basic contract work includes all labor, material, tools, transportation, equipment, and superintendence specified, indicated on the drawings or necessary to make a complete installation of, but not limited to, the following:

1. Appliances, apparatus and materials not specifically noted on drawings or mentioned herein, but which are necessary to make a complete working installation of all electrical systems required for the project.

2. Hangers, anchors, sleeves, chases, supports and fittings as may be required and as indicated.

3. Electric service with conduits, conductors, and branch circuits with raceway system and outlet boxes.

4. New Communications cables, terminations, and raceway system complete with all

equipment in operative condition.

1.6 SUBSTITUTIONS

A. Material or products specified by name of manufacturer, brand or trade name or catalogue reference will be the basis of the bid and furnished under the contract unless changed in writing by the Architect. Where two or more materials are named, the choice of these will be optional with the Contractor.

B. Submit requests for substitution in writing to the Architect with copy to Consulting Engineer, in accordance with the General Conditions.

1.7 ACCURACY OF DATA

A. Data given herein and on the drawings are as exact as could be secured, but their absolute accuracy is not guaranteed. Specifications and drawings are for the assistance and guidance of the Contractor.

B. Electrical drawings are diagrammatic, but will be followed as closely as building construction and work of other contractors will permit. All deviations from the drawings required to make the Electrical Work conform to the building as constructed and to the work of other contractors will be made by the Contractor as approved by the Architect.

1.8 VISIT THE SITE

A. Contractors are assumed to have visited the site and thoroughly acquainted themselves with conditions affecting the proposed work. Verify existing conditions and measurements at the site before beginning work and immediately notify the Architect of any discrepancies which may adversely affect completion of the work.

1.9 TEMPORARY POWER

A. Provide temporary power for reasonable convenience during construction in accordance with the General Conditions.

B. Provide GFCI Protection for all temporary power outlets.

C. Use temporary power for construction purposes only. Do not use temporary power for electric space heating, etc..

1.10 SHOP DRAWING SUBMITTALS

A. As soon as possible after contract award, submit shop drawings for review in accordance with the General Conditions and Division 1 Specifications.

B. Submit shop drawings in three ring loose-leaf binder.

C. Provide manufacturers' catalogue and/or descriptive literature indicating specific model and/or catalog numbers, options, accessories and modifications for the following items:

1. Pullboxes
2. Wiring Devices
3. Enclosed Circuit Breaker
4. Communication Cables

D. Above list is considered minimum. Additional items may be required to be submitted for review.

E. Refer to individual Specification Sections for additional Shop Drawing Submittal requirements.

1.11 RECORD DRAWINGS

A. Provide As-Built Record Drawings in accordance with the General Conditions and Division 1 Specifications.

B. Indicate location and routing of all underground raceways on the As-Built Record Drawings by dimension to permanent structures such as buildings, sidewalks, curbs, etc.

C. Indicate all changes made to the drawings such as changes in fixture and outlet location, changes in circuit routing and circuit numbering, etc. Include all changes by Addenda, Change Order, Supplemental Instruction or verbal instruction.

D. Refer to individual Specification Sections for additional Record Drawing requirements.

1.12 OPERATION AND MAINTENANCE MANUALS

A. Provide Operation and Maintenance Manuals in accordance with the General Conditions and Division 1 Specifications.

B. Include manufacturers' catalog and/or descriptive literature of equipment actually installed. Clearly indicate on literature the specific model and/or catalog numbers of equipment installed, including all options, accessories and/or modifications.

C. Refer to individual Specification Sections for additional Operation and Maintenance Manual requirements.

1.13 WARRANTY

A. Provide Warranty for Electrical Work in accordance with the General Conditions and Division 1 Specifications.

B. Provide manufacturer's warranty for all equipment which the manufacturer normally provides a warranty in excess of twelve months. Refer to individual Specification Sections for extended warranty requirements.

PART 2 - PRODUCTS

2.1 MATERIALS

A. All materials and equipment for which U.L. Standards have been established, will be listed by and bear the label of Underwriters Laboratories, Inc..

B. All materials will be new and bear the manufacturer's name, trade name and catalog or model numbers. Similar items will be of the same manufacturer.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Installation of materials will comply with all codes and be accomplished with good workmanship in the judgement of the Architect and Consulting Engineer.

3.2 COOPERATION WITH OTHER CONTRACTORS

A. Cooperate with other contractors doing work on the building as may be necessary for the proper execution of the work of various trades employed in construction of the building.

B. Refer to architectural, structural, and mechanical drawings, for construction details, and coordinate the electrical work with that of other contractors to the end that unnecessary delays and conflicts will be avoided.

3.3 MATERIAL HANDLING

A. Use all means necessary to protect materials before, during and after installation and to protect the installed work and materials of all other trades.

B. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

3.4 CUTTING AND REPAIRING

A. Provide all required digging, cutting, etc. incidental to the Electrical Work. Make required repairs thereafter to the satisfaction of the Architect.

B. Do not cut into any major structural element, beam or column, without written approval of the Architect.

C. Install the Electrical Work to proceed with other trades in order to avoid unnecessary cutting of the construction.

3.5 CONSTRUCTION REVIEW

A. The Owner, Architect and/or Consulting Engineer will perform construction review throughout the construction of the project. The construction review does not relieve the contractor from the responsibility of providing all materials and performing the work in accordance with the Contract Documents.

B. Notify the Architect in writing, giving ample notice, at the following stages of construction and allow the Owner, Architect and/or Engineer to review the installed work.

1. When all electrical rough-in is complete, but not covered.
2. Pre-Final, upon completion of all electrical work.
3. Final, upon completion of all items noted in the Pre-Final Construction Review Report.

C. Prerequisite for Final Electrical Construction Review:

1. Electrical Engineer/Consultant must be present.
2. Electrical Contractor's job foreman must be present.
3. DFCM Representative must be present.
4. Circuit Breaker and Panelboard Enclosures must be open.
5. Clear access must be provided to all devices and equipment.
6. All panels, disconnects, etc. must be labeled and typed panel index cards installed.
7. All light fixtures, outlets, equipment, etc., must be energized and operable.
8. Contractor must have pad and pencil to list all deficient items.
9. Make all corrections and adjustments after the Final Construction Review, not during. Items requiring correction will appear on the Final Construction Field Report.
10. Contractor must have all required keys to provide access to all panels and doors.

D. Test all systems and equipment provided and/or connected under the Contract for short circuits, ground faults, proper neutral connections and proper operation in the presence of the Owner, Architect and/or Engineer.

E. The entire construction will be installed in accordance with the contract documents and be free of mechanical and electrical defects prior to final acceptance of the work.

* END OF SECTION 16000 *

SECTION 16060 - MINOR ELECTRICAL DEMOLITION FOR REMODELING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplemental General Conditions, Division 1 Specification Sections and Section 16000 - General Provisions, Electrical apply to work of this section.

B. Division 1 Demolition Sections.

1.2 SCOPE

A. Remove electrical equipment and wiring systems and make required extensions and reconnections as shown on Drawings and specified herein.

B. Repair all damage resulting from demolition and extension work.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

A. Provide new materials and equipment for patching and extending work as specified in the appropriate Specification Section for the materials and equipment involved.

B. Where materials or methods not included in the Specifications are required, provide materials and methods in accordance with normal construction industry standards and as approved by the Architect.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Field verify existing measurements and circuiting arrangements are as shown on Drawings.

B. Verify that abandoned wiring and equipment serve only abandoned facilities.

C. Demolition Drawings are based on field observation of existing surface conditions and available existing building electrical drawings. Report discrepancies to Owner and/or Architect before disturbing existing installation.

D. All demolition and extension work is not necessarily indicated on Drawings. Include all such work without additional cost to Owner.

3.2 PREPARATION

A. Coordinate utility service outages with Salt Lake Community College Facilities Division Project Manager.

B. Provide temporary wiring and connections to maintain existing systems in service during construction. When work must be performed on energized equipment or circuits, use electricians experienced in such operations.

C. Protect all existing electrical equipment to remain from damage during demolition and new construction. Survey all existing equipment prior to beginning work and document in writing any existing damage to existing equipment.

3.3 DEMOLITION

A. Coordinate with Owner for equipment and materials to be removed by Owner or salvaged by the

contractor for Owner. Place salvaged equipment and materials in storage at the project site as directed by the Owner.

B. Legally dispose of all removed equipment and materials not salvaged for the Owner.

C. Remove abandoned wiring to source of supply, i.e. panelboard, circuit breaker, etc..

D. Remove accessible abandoned conduit, cables, junction boxes, etc..

E. Disconnect abandoned outlets and remove devices. Remove abandoned outlet boxes and conduit servicing them where indicated on drawings. Provide blank cover for abandoned outlets which are not indicated to be removed.

3.4 EXTENSION OF EXISTING ELECTRICAL WORK

A. Reconnect existing equipment where demolition interrupts existing branch circuits or feeders to the equipment.

B. Repair adjacent construction and finishes damaged during demolition and extension work to match surrounding surfaces.

C. Maintain access to existing electrical installations which remain active. Modify installation or provide access panel as appropriate.

D. Extend existing installations using materials and methods as specified for new work. Remove and replace existing installations which are not compatible with new work.

3.5 INSTALLATION

A. Install relocated materials and equipment as required for new materials and equipment.

3.6 OUTAGES

A. Maintain Existing Electrical Systems in service until new systems are complete and ready for service. Disable systems only to make switchovers and connections. Minimize outage duration.

B. Obtain permission from Salt Lake Community College Facilities Division Project Manager before partially or completely disabling systems in accordance with Division 1 Specification Sections.

* END OF SECTION 16060 *

SECTION 16110 - RACEWAYS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplemental General Conditions, Division 1 Specification Sections and Section 16000 - General Provisions, Electrical apply to work of this section.

1.2 SCOPE

A. Provide a complete raceway system for all wiring as shown on the drawings and as specified herein.

PART 2 - PRODUCTS

2.1 RACEWAYS

A. Provide minimum 3/4" trade diameter raceways for all wiring systems.

B. Do not use aluminum conduit, intermediate steel conduit (IMC), BX cable, Flexible Non-metallic Tubing, NM cable, Direct Burial Cable or any other wiring methods not allowed by this specification unless approved in writing by the Architect and/or Engineer.

C. Type ‘MC’ Metal Clad Cable may be used to fish branch circuits through structural beams and columns only where specifically noted on the drawings and/or as approved by the Architect.

2.2 ABOVEGROUND RACEWAYS

A. Provide Electrical Metallic Tubing (EMT), galvanized inside and out, for raceways not subject to permanent moisture or damage.

B. Provide Galvanized Rigid Steel Conduit (GRC) where raceways are subject to permanent moisture such as underground, or damage such as vehicular traffic, etc..

2.3 UNDERGROUND RACEWAYS

A. Provide Schedule 40 PVC electrical conduit in earth or in concrete in contact with earth.

1. Provide a separate ground wire in all PVC conduits, except main electrical service conduits.

2. Provide Galvanized Rigid Steel Conduit (GRC) for all bends greater than 22 degrees in PVC conduits.

3. Do not use PVC conduit above grade nor for penetrations through structural elements such as foundation walls, floor slabs, etc..

B. Provide Galvanized Rigid Steel Conduit (GRC) for conduit penetrations through floor slab or grade to extend minimum 12" above floor or grade.

C. Provide Galvanized Rigid Steel Conduit (GRC) for conduit penetrations through foundation walls to extend minimum 36" beyond the foundation wall.

D. Provide Factory PVC coated galvanized rigid steel conduit with 40 mil exterior PVC coating and 3 mil interior phenolic coating equal to Robroy Industries Plasti-Bond 2 for all GRC conduit installed in earth or in concrete in contact with earth. Provide factory sleeves for couplings and joints to ensure watertight connections.

2.4 FLEXIBLE RACEWAY CONNECTIONS

A. Provide Flexible Steel Conduit for final connection to equipment as noted on drawings.

B. Provide liquid-tight flexible steel conduit outside and in wet, humid, corrosive and oily locations.

1. Provide Sunlight Resistant liquid-tight flexible steel conduit outdoors.

C. Provide a ground conductor in all flexible steel conduit.

D. Flexible Steel Conduit may be used where misalignment or cramped quarters exist only with prior approval of the Architect and/or Engineer.

E. Flexible Steel Conduit may be used to fish through existing walls and ceilings only with prior approval of the Architect and/or Engineer.

2.5 METAL CLAD CABLE

A. Where indicated on drawings, provide metal clad cable with galvanized interlocking steel strip armor, copper conductors with 600 Volt THHN/THWN insulation, polypropylene assembly tape, and insulated ground conductor, equal to AFC Cable Systems “McTuff” series.

B. Conductors shall be color coded in accordance with Specification Section 16120 - Conductors.

C. Steel armor shall be color coded blue to indicate power cable. Additional color coding stripes shall be provided on the steel armor to indicate system voltage and number of conductors as follows:

1. 120/208 Volt, 3 Phase, 4 Wire System
   a. 2 Conductor Cable: additional Black stripe.
   b. 3 Conductor Cable: additional Black and Red stripes.
   c. 4 Conductor Cable: additional Black, Red, and Light Blue stripes.

2.6 CONDUIT FITTINGS

A. Provide steel compression type or steel set screw type fittings for Electrical Metallic Tubing.

B. Provide malleable iron clamp type fittings for Flexible Steel Conduit.

C. Provide steel compression type fittings for Liquid-Tight Flexible Steel Conduit.

D. Provide threaded fittings for GRC conduit. Provide double locknuts and plastic bushing for GRC conduit terminations or provide boxes and enclosures with threaded hubs.

E. Provide liquid-tight and gas-tight conduit fittings underground using fittings and PVC cement as recommended by the conduit manufacturer.

F. Provide steel rain-tight, compression type fittings for all conduit installed outside and in wet, humid, corrosive and oily locations.

G. Provide Insulated Throat Connectors for all conduit terminations 1" diameter and smaller. Provide insulating bushings for all conduit terminations 1-1/4" diameter and larger.

H. Provide Grounding Bushings bonded to the electrical system ground:

1. On each end of all feeder conduits in which a separate ground conductor is installed.

2. On each end of all conduits used to protect ground conductors.

3. On all conduit terminations installed in concentric or eccentric knockouts or where reducing washers have been installed.

I. Do not use cast metal or indenter type fittings. Do not use screw-in type fittings for Flexible Steel Conduit. Do not use spray (aerosol) PVC cement.

2.7 PULL BOXES

A. Provide pull boxes or conduit bodies in accessible locations where required to reduce the number of bends in the conduit run to less than 360 degrees and at points not exceeding 100 feet in long branch circuit conduit runs.

1. Indicate exact location of pull boxes and conduit bodies on the As-Built Record Drawings.

2.8 PULL STRING

A. Provide a nylon or polypropylene pull string with not less than 200 lb tensile strength in all spare conduits and conduits installed for use by others. Provide a hard cardboard tag for each raceway to indicate location of the opposite end of the raceway.

PART 3 - EXECUTION

3.1 SUPPORTS

A. Securely support all raceways with full (2 hole) pipe straps, hangers, or ceiling trapeze directly from building structure such as roof trusses, beams, floor joists, etc., in accordance with Specification Section 16190 - Supporting Devices.

1. Do not support raceways from other electrical systems or mechanical systems.

B. Provide supports at 5'-0" on center with a minimum of two supports for each ten foot length of conduit or fraction thereof up to 6 feet.

C. Provide a support within 12" of each coupling, fitting, box, enclosure and bend.

1. Install supports at vertical to horizontal conduit bends on the upper side of the bend.

3.2 INSTALLATION

A. Raceway layouts on the drawings are generally diagrammatic and the exact routing of raceways will be governed by structural conditions and the work of other contractors.

B. Install raceways concealed within finished ceilings, walls and floors except where exposed raceways are specifically shown on the drawings or permitted by the Architect.

C. Install exposed raceways parallel with or perpendicular to walls and ceilings, with right angle turns consisting of symmetrical bends or conduit bodies equal to Crouse-Hinds "Condulet". Avoid all bends and offsets where possible.

1. Paint all exposed raceways to match surrounding surfaces in accordance with Division 9 Specification Sections.

D. Install raceways minimum 12" from insulation of hot water piping, steam piping and other systems or equipment with temperatures in excess of 104^0 F (40^0 C).

E. Make all field bends and offsets with a radius not less than allowed by the National Electrical Code for the type of raceway system.

1. Do not install bends or offsets which are flattened, kinked, rippled or which destroy the smooth internal bore or surface of the conduit.

F. Cap the open ends of raceways during construction to prevent the accumulation of water, dirt or concrete in the raceways. Thoroughly clean raceways in which water or other foreign matter has been permitted to accumulate or replace the raceway where such accumulation cannot be

removed by a method approved by the Architect and/or Engineer.

G. Do not install raceways which have been crushed or deformed in any manner.

H. Do not install wiring until work which might cause damage to the wires or raceways has been completed.

3.3 UNDERGROUND RACEWAY INSTALLATION

A. Install underground raceways within buildings minimum 4" below the bottom of the concrete floor slab to the top of the raceway.

B. Install underground raceways outside of building minimum 24" below finished grade to the top of the raceway.

1. Provide a plastic red magnetic warning ribbon stating "CAUTION - BURIED ELECTRICAL" 12" directly above the top of the raceway.

C. Use select granular fill, free of rocks or hard clumps with sharp or angular edges, for the first 6" of backfill around underground raceways including raceways below concrete floor slabs. Provide imported sand backfill where required by Division 2 Specifications or where excavated materials are not suitable.

D. Exercise care in installation of Factory PVC Coated Rigid Steel Conduit to prevent damage to the PVC coating.

1. Use special tools and/or methods recommended by the conduit manufacturer to make field bends, cuts, etc.

2. Do not install any conduit with damaged PVC coating. Field repairs of the PVC coating will not be allowed.

E. Coordinate location of underground raceways with the General Contractor to avoid areas where raceways may be damaged by subsequent installation of trees, shrubbery or other landscape vegetation.

F. Install underground raceways minimum 3'-0" from parallel runs, and minimum 1'-0" from perpendicular runs, of underground natural gas and propane lines.

G. Do not use torches to heat PVC conduit for field bends. Do not install PVC conduit that has been scorched by heating for bends.

* END OF SECTION 16110 *

SECTION 16120 - CONDUCTORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplemental General Conditions, Division 1 Specification Sections and Section 16000 - General Provisions, Electrical apply to work of this section.

1.2 SCOPE

A. Provide all conductors for power and lighting as shown on drawings and as specified herein.

PART 2 - PRODUCTS

2.1 CONDUCTORS

A. Provide Copper building wire, minimum #12 AWG, with type THHN/THWN or XHHW 600 volt insulation, except as otherwise noted on the drawings or required by NEC.

1. Provide conductors in underground raceways with insulation approved for wet locations such as type THWN or XHHW.

B. Provide stranded conductors for wires #8 AWG and larger and for terminal connections to all motors. Stranded or solid conductors may be used for sizes smaller than #8 AWG at the contractor's option.

C. Provide conductors rated 90^0 C minimum in wiring channels of Fluorescent and High Intensity Discharge lighting fixtures.

D. Provide conductors with surface printed identification showing conductor size and material, insulation type, voltage rating and approvals at regularly spaced intervals of 24".

E. Do not use sizes smaller than #12 AWG in branch circuits carrying load. Circuits requiring larger sizes to meet voltage drop conditions, etc., are indicated on the drawings.

1. Where branch circuit homeruns indicate conductor size, use that size conductor for the entire branch circuit, including switch legs, etc.

F. Do not use aluminum conductors.

2.2 SPLICES

A. Provide Ideal wirenuts or Scotchlock spring connectors for all conductor splices #8 AWG and smaller. Provide split-bolt or compression type connectors for all conductor splices larger than #8 AWG.

B. Provide splices which are UL listed for the type, quantity and size of the conductors to be spliced.

C. Provide all splices with insulation at least equal to that of the conductor.

D. Provide watertight splices in junction or outlet boxes located outside and in wet locations. Provide heat shrink insulating kits or use connectors pre-potted with an approved waterproof compound.

E. Splice conductors only in approved boxes. Do not splice conductors in conduit bodies.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install all conductors in approved raceway systems.

B. Install conductors continuous without splice between outlet boxes, devices and panelboards.

1. Provide suitable junction boxes in readily accessible locations where splices are necessary at intermediate points. Indicate exact location of all boxes on the As-Built Record Drawings.

C. Do not install wiring until work which might cause damage to the wires has been completed.

3.2 COLOR CODING

A. Color code all wiring at each enclosure and box where conductors are accessible and at each splice, tap or termination by means of colored conductor insulation.

1. For conductors #6 AWG and larger, colored self-adhesive tape with the appropriate color designations may be used.

B. Color code each conductor of each circuit as follows.

1. Ground: Green or Bare Copper

2. 120/208 Volt, 3 Phase, 4 Wire System
   a. Phase A - Black
   b. Phase B - Red
   c. Phase C - Blue
   d. Neutral - White

3. 277/480 Volt, 3 Phase, 4 Wire System
   a. Phase A - Brown
   b. Phase B - Orange
   c. Phase C - Yellow
   d. Neutral - Gray

4. Match existing conductor color coding if different than above.

C. Color code switch legs and travelers according to phase with colors other than used for phase conductors, to be consistent throughout the project.

3.3 MULTI-WIRE BRANCH CIRCUITS

A. Where a common neutral is run for multi-wire branch circuits, connect phase conductors to separate phases such that the neutral conductor will carry only the unbalanced current. Use neutral conductors of the same size as the phase conductors unless specifically noted otherwise.

B. Do not install more than three phase conductors in any raceway except where specifically shown on the drawings or approved by the Architect and/or Engineer.

3.4 PHASE ROTATION

A. Phase rotation for Three Phase System will be A leads B Leads C from front to back, from left to right or from top to bottom as viewed from the front of the enclosure.

* END OF SECTION 16120 *

SECTION 16130 - ELECTRICAL BOXES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplemental General Conditions, Division 1 Specification Sections and Section 16000 - General Provisions, Electrical apply to work of this section.

1.2 SCOPE

A. Provide junction boxes and outlet boxes at each outlet, fixture and other device location as shown on drawings and as specified herein.

PART 2 - PRODUCTS

2.1 OUTLET AND DEVICE BOXES

A. Provide galvanized or cadmium plated sheet steel electrical boxes in indoor dry locations, of the most suitable size and shape for the conditions encountered and in accordance with NEC requirements for the number of conductors allowed.

B. Provide minimum 4" Square or Octagonal, 1-1/2" Deep Boxes unless specifically indicated otherwise on the drawings.

1. Provide minimum 4" Square or Octagonal, 2-1/8" Deep Boxes where Three (3) conduit connections are required.

2. Provide minimum 4-11/16" Square, 2-1/8" Deep Boxes where Four (4) or more conduit connections are required.

3. Provide gang boxes where more than one device is located at the same point.

4. Boxes smaller than 4" Square or Octagonal, even though of equivalent cubic inch capacity, are not acceptable.

C. Provide Type FD cast metal boxes outside, in wet, humid or corrosive locations and where exposed to damage such as vehicular traffic.

D. Confer with the various equipment suppliers and either use or properly provide for boxes which are furnished with the equipment, such as speakers, horns, bells, etc..

E. Do not use "THRU-THE-WALL" boxes, sectional (gangable) boxes or non-metallic boxes.

2.2 JUNCTION BOXES

A. Provide junction boxes as specified for outlet and device boxes except that boxes 6" square and larger may be painted sheet steel.

2.3 BOX ACCESSORIES

A. Provide fittings, plaster rings, cover plates and other accessories suitable for the purpose and location of each box.

B. Provide plaster rings which are minimum 1/8" deeper than wall covering for flush mounted boxes (i.e. use 3/4" plaster ring for 5/8" gypsum board wall covering) such that plaster ring will be flush with finished face of wall.

C. Provide industrial raised covers for surface mounted outlet and device boxes.

PART 3 - EXECUTION

3.1 SUPPORTS

A. Support each box from the building structure independent of the raceway system.

B. Secure surface mounted boxes to building structure with minimum of 2 screws or bolts as required.

C. Do not use side mounted boxes or brackets.

3.2 INSTALLATION

A. Install boxes level and plumb.

3.3 LOCATIONS

A. The wiring system layouts on the drawings are generally diagrammatic and the location of outlets and equipment are approximate.

B. Study all available drawing details, shop drawings, equipment drawings, building conditions and materials surrounding each outlet and device box prior to installing the box to ascertain the exact location required for each box.

C. Rough in the electrical work such that electrical outlets, fixtures and other fittings are properly fitted to the work of other trades.

D. Do not install boxes inside cupboards, behind drawers, or otherwise so located, as to be inaccessible or unsuited for the purpose intended.

E. The right is reserved to make any reasonable change in the location of the outlets before roughing in, without involving additional expense.

3.4 MOUNTING HEIGHT

A. Install outlet and device boxes at the heights shown on the drawings or as directed by the Architect. In general, mount outlets as follows.

1. Convenience Outlet 18"

B. All mounting heights, including mounting heights indicated on drawings, are to the center of the outlet box above finished floor or grade unless noted otherwise.

C. Refer to applicable Specification Sections for mounting heights of devices and equipment not included above or install at heights as directed by the Architect and/or Engineer.

* END OF SECTION 16130 *

SECTION 16140 - OUTLETS AND WIRING DEVICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplemental General Conditions, Division 1 Specification Sections and Section 16000 - General Provisions, Electrical apply to work of this section.

1.2 SCOPE

A. Provide all wiring devices complete with coverplates and necessary accessories as shown on the drawings and as specified herein.

1.3 SUBMITTALS

A. Provide submittals for each type of wiring device to be used on the project in accordance with Division 1 Specifications and Section 16000 - General Provisions, Electrical to verify compliance with the contract documents.

PART 2 - PRODUCTS

2.1 WIRING DEVICES

A. Provide wiring devices rated 20 amps minimum, as specified below, or equivalent of Eagle, General Electric, Hubbell, Leviton or Pass & Seymour.

1.	Receptacle, duplex convenience, 3-wire	Bryant 5352
2.	Receptacle, duplex, GFCI protected	Bryant GFR53FT

B. Provide Gray devices unless noted otherwise on the drawings.

C. Provide convenience outlets with GFCI protection in accordance with NEC requirements, where installed outside or within 6 feet of any sink and as indicated on the drawings.

1. Provide a self-adhesive printed label stating "GFCI PROTECTED" for each outlet protected by feed-through GFCI receptacles or GFCI circuit breakers.

2. Use feed-through GFCI outlets only to protect other outlets within sight of the GFCI protected outlet.

2.2 COVERPLATES

A. Provide a cover plate for each outlet and box suitable for the location and function of the outlet and box.

B. Provide blank cover plates for junction boxes and outlet boxes not used.

C. Provide UV Stabilized Polycarbonate, "Raintight While In Use" coverplates with spring return lids and suitable gasket as manufactured by Eagle or Taymac for all receptacles installed outside or in wet locations.

2.3 ACCESSORIES

A. Equip each outlet with devices suitable for the purpose of the outlet and with means of properly connecting the equipment served, whether or not such devices are specifically mentioned.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Properly locate each outlet to fulfill its particular purpose. Do not install receptacles or boxes inside cupboards, behind drawers, or otherwise so located, as to be inaccessible or unsuited for the purpose intended.

B. Install all outlets and wiring devices flush with face of coverplate, with the coverplate in contact with the finished face of the wall and with mounting strap of device in contact with the outlet box.

* END OF SECTION 16140 *

SECTION 16190 - SUPPORTING DEVICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplemental General Conditions, Division 1 Specification Sections and Section 16000 - General Provisions, Electrical apply to work of this section.

1.2 SCOPE

A. Provide suitable supporting devices for all electrical equipment, raceways and components as specified herein and as shown on the drawings.

B. Refer to individual specification sections for additional supporting requirements.

PART 2 - PRODUCTS

2.1 SUPPORTING DEVICES

A. Provide support anchors which will support in tension a minimum of 4 times the weight of the equipment to be supported but not less 100 lbs.

B. Provide wood screws in wood; toggle bolts in hollow masonry units; expansion bolts with lead shield or shot anchors in concrete and brick; and machine screws, threaded 'C' clamps or spring-tension clamps on steel work.

C. Do not use tie wire for support unless specifically called for in individual specification sections.

D. Do not use threaded C Clamps on tapered steel sections.

E. Do not weld supports, equipment, boxes, raceways, etc., to steel structures.

F. Do not use wooden plugs or plastic inserts as a base for supports.

G. Do not use shot anchors or drilled anchors of any kind in prestressed or post-tensioned concrete slabs and beams except as approved in writing by the Architect.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Secure supporting devices to building structure.

B. Do not install supporting devices with sheetrock or plaster as the sole means of support. Provide proper blocking behind the sheetrock or plaster as required to support equipment.

* END OF SECTION 16190 *

SECTION 16195 - ELECTRICAL IDENTIFICATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplemental General Conditions, Division 1 Specification Sections and Section 16000 - General Provisions, Electrical apply to work of this section.

1.2 SCOPE

A. Provide identification of all electrical equipment, devices, enclosures, conductors, cables, etc., as shown on the drawings and as specified herein.

B. Refer to individual specification sections for additional identification requirements.

PART 2 - PRODUCTS

2.1 NAMEPLATES

A. Provide engraved laminated micarta or plastic nameplates to identify each panelboard, cabinet, motor starter, disconnect, etc., with the following minimum lettering heights:

1. Disconnects, enclosed breakers, etc. - 1/4"

B. Provide Black Nameplates with White Lettering unless noted otherwise, or required to contrast with equipment enclosures.

C. Do not use Dynamo Labels, printed labels, etc., unless specifically called for in other specification sections or approved by the Architect and/or Engineer.

2.2 EQUIPMENT IDENTIFICATION

A. Provide engraved nameplates on the exterior of each Safety Switch, Enclosed Circuit Breaker, etc., to include the Equipment Description, Voltage, and the Circuit from which the equipment is served.

1. Example: TRANSFORMER DISCONNECT
   100 AMP, 480 VOLT, 3Ø
   ADMIN BLDG CIRCUIT LDP-6

2. Example: SIGN DISCONNECT
   100 AMP, 120/208 VOLT, 3Ø

B. Provide engraved nameplates on the exterior of feeder and other major junction boxes and pull boxes to indicate the function of the wiring within the box such as "PANEL 'A' FEEDER" or "FIRE ALARM PULLBOX".

2.3 CONDUCTOR IDENTIFICATION

A. Identify each branch circuit and each feeder conductor at each outlet box, pull box or other accessible location with hand lettering in black India ink in the enclosure to indicate panel and circuit numbers of all conductors in the enclosure.

2.4 PANELBOARD CIRCUIT INDEX

A. Provide a neatly typed index, to include type of load served and the specific location of the load for each branch circuit of each panelboard.

B. Examples

1. Lighting, Bus Stop Canopy
2. Receptacle, Bus Stop Area Well

C. Coordinate with Sign Contractor to properly identify all branch circuit installed under this contract.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install nameplates to be visible from normal viewing angles.

B. Attach nameplates to equipment enclosures with stainless steel screws or rivets. Adhesives are not acceptable.

C. Install panel index behind protective plastic covering. Coordinate with Sign Contractor.

* END OF SECTION 16195 *

SECTION 16400 - SECONDARY SERVICE AND DISTRIBUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplemental General Conditions, Division 1 Specification Sections and Section 16000 - General Provisions, Electrical apply to work of this section.

1.2 SCOPE

A. Provide complete electrical service as shown on drawings and as specified herein.

PART 2 - PRODUCTS

2.1 SYSTEM

A. The Existing Secondary Electrical Distribution System is 277/480 Volt, Three Phase, Four Wire, 60 Cycle for HID Lighting, Fluorescent Lighting, and Equipment; and 120/208 Volt, Three Phase, Four Wire, 60 Cycle for Incandescent Lighting, Appliances and Outlets.

2.2 FEEDERS

A. Sizes and connection of feeders are shown on the drawings. Feeders are sized to handle rated loads and to meet voltage drop conditions.

B. Do not install conductors of different sizes or types in the same conduits.

PART 3 - EXECUTION

3.1 FEEDERS

A. Before or during final job site observation, check each panel feeder for balance of load on each phase, and make necessary adjustments to insure acceptable balance.

3.2 POWER OUTAGES

A. Power outages to any portion of the existing building will not be allowed except on weekends, holidays and/or as directed by the Owner.

1. Submit written requests for power outages to the SLCC Facilities Project Manager not less than Seven (7) working days prior to all proposed outages.

2. Do not take any power outages without the Owner’s permission.

* END OF SECTION 16400 *

SECTION 16450 - SECONDARY GROUNDING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Supplemental General Conditions, Division 1 Specification Sections and Section 16000 - General Provisions, Electrical apply to work of this section.

1.2 SCOPE

A. Ground all non-current carrying metallic parts of electrical equipment, raceway systems and the neutral conductor of the wiring system as shown on the drawings and specified herein.

B. Provide new ground for existing transformer as shown on the drawings and as specified herein.

PART 2 - PRODUCTS

2.1 GROUND CONDUCTORS

A. Provide copper ground conductors, minimum No. 8 AWG solid. Stranded conductors may be used for sizes No. 2 AWG and larger.

2.2 GROUND CONNECTIONS

A. Make the ground connection at the existing transformer and connect to ground rods as shown on the drawings and in accordance with NEC Article 250.30.

B. Bond the neutral conductor to electrical service ground system at the existing transformer only.

C. Make above ground connections by means of pressure connectors, compression connectors, clamps or other means which are UL Listed and classified as suitable for purpose.

2.3 GROUND RODS

A. Provide copper ground rods, minimum 3/4" diameter and 10'-0" long, which conform to UL 467, Grounding and Bonding Equipment where indicated on the drawings.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Leave ground connections accessible for inspection.

B. Install ground rods minimum 8 feet into earth. Space adjacent ground rods minimum 6 feet apart.

C. Connect grounding conductors for grounding receptacles, etc., to a ground terminal in the panelboard. Provide a separate ground terminal for each grounding conductor as it is brought into the panelboard.

D. Install all grounding in accordance with the latest edition of the National Electrical Code.

* END OF SECTION 16450 *

GENERAL NOTES:

1. LOCATIONS OF EXISTING ELECTRICAL EQUIPMENT, OUTLETS, FEEDERS, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.

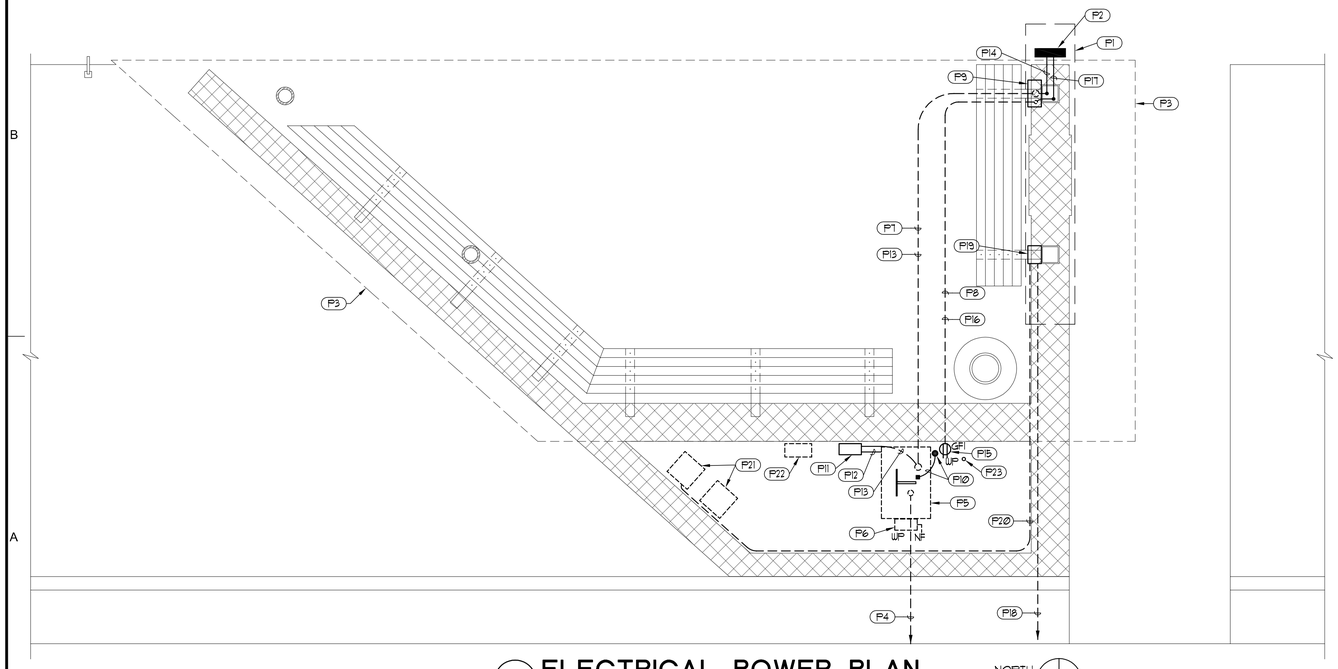
2. DEMOLITION IS SHOWN FOR CONTRACTORS REFERENCE ONLY. FIELD VERIFY QUANTITIES AND LOCATIONS OF ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED. REMOVE ALL ABANDONED CONDUIT WIRING, BOXES, ETC., WHETHER SPECIFICALLY SHOWN OR NOT.

3. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING STRUCTURE. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE REPAIRS WITH THE GENERAL CONTRACTOR.

4. NEW BUS STOP CANOPY WITH LIGHTING WILL BE PROVIDED BY OWNER UNDER A SEPARATE CONTRACT. COORDINATE WITH OTHER CONTRACTOR.

5. FURNISH SIGN ELECTRICAL PANEL WITH 1P-20A BREAKER FOR CONNECTION TO NEW RECEPTACLE, AND (3) 1P-20A SPARE BREAKERS FOR FUTURE USE.

6. COORDINATE ALL ELECTRICAL CONNECTIONS TO SIGN WITH OWNER, GENERAL CONTRACTOR, AND ARCHITECT.



A1 ELECTRICAL POWER PLAN
SCALE: 3/8" = 1'-0"

NORTH
0 1' 2' 4' 6'

POWER PLAN KEYED NOTES:

P1 OUTLINE OF NEW ENTRANCE SIGN ABOVE, SEE ARCHITECTURAL DRAWINGS. COORDINATE INSTALLATION AND ELECTRICAL CONNECTIONS WITH SIGN SUPPLIER.

P2 ELECTRICAL PANEL, 100 AMPERE, 120/208 V, 3φ, 4W, TO BE PROVIDED WITH SIGN.

P3 OUTLINE OF BUS STOP CANOPY ROOF ABOVE TO BE CONSTRUCTED UNDER A SEPARATE CONTRACT. COORDINATE WITH OTHER CONTRACTOR. (TYPICAL)

P4 EXISTING 3 #1/0 AL, 2" PVC UNDERGROUND TO 3P-100A BREAKER IN EXISTING PANEL 'LDP' IN ADMINISTRATION BUILDING TO REMAIN, SEE ELECTRICAL SITE PLAN, SHEET E-102 FOR CONTINUATION. PROVIDE NEW ANTI-OXIDANT COMPOUND FOR TERMINATIONS AT EACH END OF CONDUCTORS AND TORQUE LUGS TO MANUFACTURER'S SPECIFICATION USING A TORQUE WRENCH.

P5 EXISTING DRY TYPE TRANSFORMER, 75 KVA, 480 V, 3φ, 3W TO 120/208 V, 3φ, 4W TO REMAIN. PROVIDE NEW WEATHERSHIELDS FOR THE EXISTING TRANSFORMER.

P6 EXISTING NON-FUSED SAFETY SWITCH FOR TRANSFORMER PRIMARY TO REMAIN INCLUDING LINE SIDE CONDUCTORS FROM ADMINISTRATION BUILDING. REPLACE EXISTING LOAD SIDE ALUMINUM CONDUCTORS WITH #2 COPPER CONDUCTORS TO EXISTING TRANSFORMER PRIMARY.

P7 REMOVE EXISTING 4 #4/0 AL CONDUCTORS COMPLETE FROM EXISTING TRANSFORMER TO EXISTING SIGN PANEL. EXISTING 2-1/2" PVC UNDERGROUND CONDUIT IS TO REMAIN.

P8 REMOVE EXISTING CONDUCTORS COMPLETE FROM EXISTING RECEPTACLE TO EXISTING SIGN PANEL. EXISTING 3/4" PVC UNDERGROUND CONDUIT IS TO REMAIN.

P9 REPLACE EXISTING 12" x 12" x 6" NEMA 1 PULLBOX WITH NEW 12" x 12" x 6" NEMA 3R SCREW COVER PULLBOX EQUAL TO CIRCLE AW CAT. NO. 12126RTSCNK. RECONNECT EXISTING UNDERGROUND CONDUITS AND BUSHED OPENING INTO EXISTING STEEL COLUMN. REPAIR EXISTING BRICK AND GROUT AROUND PULLBOX, COORDINATE WITH GENERAL CONTRACTOR. (PULLBOX SIZE IN ACCORDANCE WITH NEC 314.28(A)(3).)

P10 PROVIDE NEW 3/4" x 10'-0" COPPER GROUND ROD AND #2 BARE COPPER GROUND CONDUCTOR TO TRANSFORMER SECONDARY. CORE-DRILL 2" HOLE IN CONCRETE FLOOR TO INSTALL NEW GROUND ROD AND LEAVE HOLE OPEN TO ALLOW MOISTURE TO THE GROUND ROD.

P11 PROVIDE NEW 3P-100A CIRCUIT BREAKER, 120/208 V, 3φ, 4W, 10K AIC, IN NEMA 3R ENCLOSURE.

P12 PROVIDE NEW 4 #2, 1 #6 GND, 1-1/4" C FROM TRANSFORMER SECONDARY TO LINE SIDE OF NEW ENCLOSED CIRCUIT BREAKER.

P13 PROVIDE NEW 4 #2, 1 #6 GND, 1-1/4" C FROM LOAD SIDE OF NEW ENCLOSED CIRCUIT BREAKER TO EXISTING TRANSFORMER ENCLOSURE. INSTALL CONDUCTORS, CONTINUOUS WITHOUT SPLICE, THROUGH TRANSFORMER ENCLOSURE. EXISTING 2-1/2" PVC UNDERGROUND CONDUIT, NEW PULLBOX, EXISTING STEEL COLUMN, AND NEW CONDUIT TO NEW ELECTRICAL PANEL FURNISHED WITH NEW SIGN.

P14 INSTALL NEW 4 #2, 1 #6 GND, IN 1-1/4" LIQUID-TIGHT FLEXIBLE STEEL CONDUIT FROM EXISTING COLUMN TO NEW SIGN ELECTRICAL PANEL. COORDINATE REQUIREMENTS WITH SIGN CONTRACTOR.

POWER PLAN KEYED NOTES: (CONTINUED)

P15 REPLACE EXISTING OUTLET BOX AND RECEPTACLE WITH CAST METAL OUTLET BOX AND NEW GFCI DUPLEX RECEPTACLE WITH "RAINTIGHT WHILE IN USE" COVER. RECONNECT EXISTING 3/4" PVC UNDERGROUND CONDUIT.

P16 PROVIDE NEW 3 #12, 1 #12 GND, (RECEPTACLE CIRCUIT AND SPARE CIRCUIT) IN EXISTING 3/4" PVC FROM RECEPTACLE TO NEW PULLBOX.

P17 PROVIDE 3C W/GND TYPE 'MC' METAL CLAD CABLE FROM NEW PULLBOX THROUGH EXISTING COLUMN TO NEW SIGN ELECTRICAL PANEL. COORDINATE WITH SIGN CONTRACTOR.

P18 EXISTING 1" PVC UNDERGROUND COMMUNICATION CONDUIT TO ADMINISTRATION BUILDING MAIN COMMUNICATIONS ROOM TO REMAIN, SEE ELECTRICAL SITE PLAN, SHEET E-102 FOR CONTINUATION. REMOVE AND REPLACE EXISTING COMMUNICATION CABLES INCLUDING 4 PAIR TELEPHONE CABLE FOR IRRIGATION SPRINKLER CONTROLLERS.

P19 PROVIDE NEW 12" x 8" x 6" NEMA 3R SCREW COVER PULLBOX EQUAL TO CIRCLE AW CAT. NO. 8126RTSCNK. ENLARGE EXISTING BRICK OPENING AS REQUIRED TO INSTALL PULL BOX AND GROUT AROUND THE PULLBOX. RECONNECT EXISTING 1" UNDERGROUND CONDUIT, 3/4" CONDUIT TO IRRIGATION SPRINKLER CONTROLLERS, AND BUSHED OPENING INTO EXISTING STEEL COLUMN. COORDINATE WITH GENERAL CONTRACTOR AND SIGN CONTRACTOR.

P20 EXISTING 3/4" EXPOSED CONDUIT WITH 4 PAIR TELEPHONE CABLE. RECONNECT EXISTING CONDUIT TO NEW PULLBOX. RECONNECT EXISTING TELEPHONE CABLE TO NEW TELEPHONE CABLE FROM ADMINISTRATION BUILDING. COORDINATE REQUIREMENTS WITH SIGN CONTRACTOR AND OWNER.

P21 EXISTING IRRIGATION SPRINKLER CONTROLLERS TO REMAIN.

P22 EXISTING IRRIGATION SPRINKLER PULLBOX AND WIRING TO REMAIN.

P23 EXISTING 3/4" PVC CONDUIT STUB-UP AND EXPOSED IRRIGATION SPRINKLER CONTROL WIRING TO REMAIN.

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SALT LAKE COMMUNITY COLLEGE
REDWOOD ROAD CAMPUS
NEW ENTRANCE SIGNAGE

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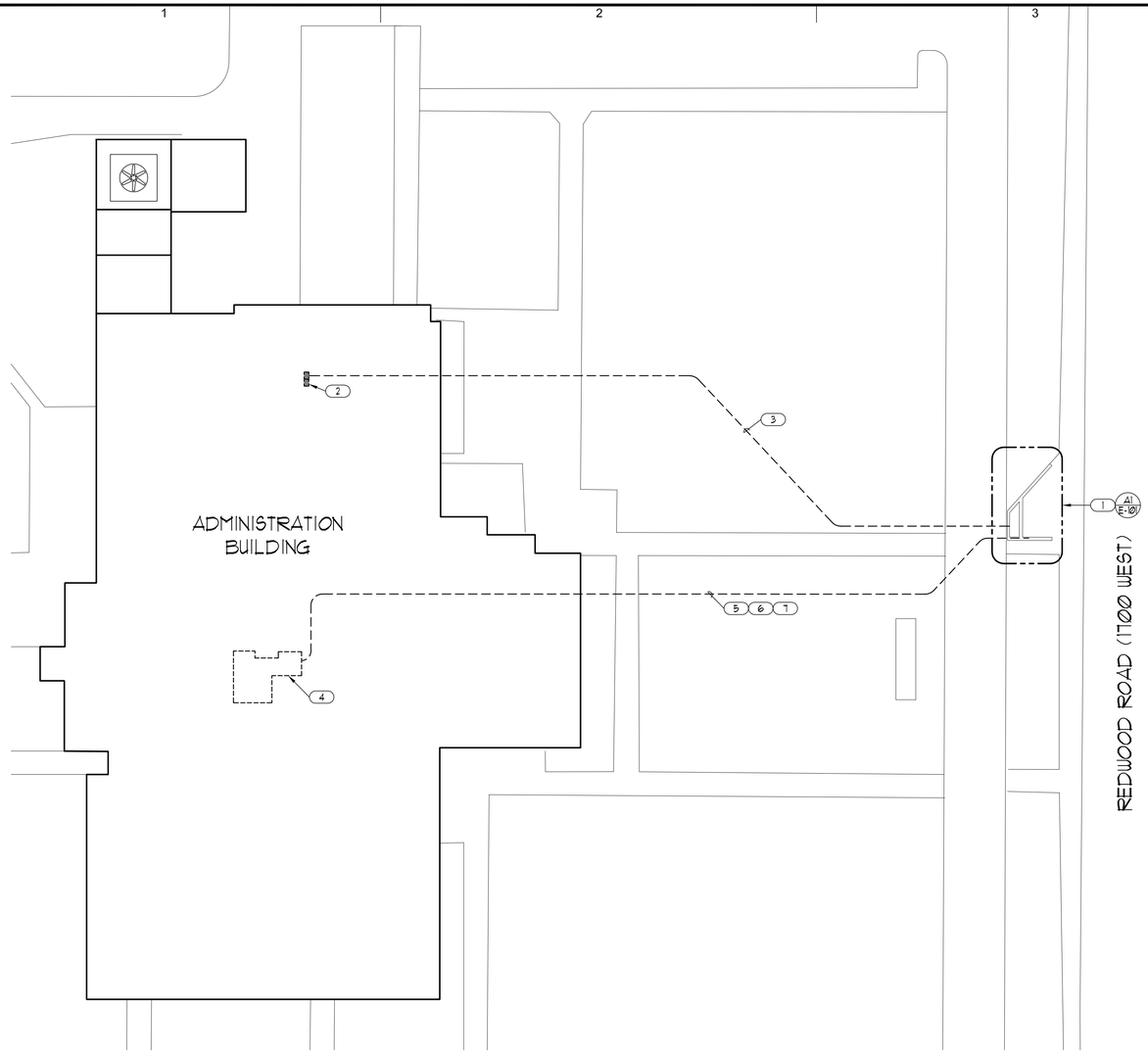
MARK	DATE	DESCRIPTION
	8.22.05	CONSTRUCTION DOCUMENTS

DFCM PROJECT NO: 05019660
ARCH. PROJECT NO: 05-08
CAD DWG FILE: E-101.dwg
DRAWN BY: WBG
CHECKED BY: RGK
DESIGNED BY: WBG

SHEET TITLE

ELECTRICAL PLANS
AND KEYED NOTES

E-101
5 OF 6



B1 ELECTRICAL SITE PLAN
SCALE: 1" = 30'-0"
0 10' 30' 60'
NORTH

SITE PLAN KEYED NOTES:

1. LOCATION OF NEW ENTRANCE SIGN. SEE ELECTRICAL PLAN, SHEET E-101.
2. LOCATION OF EXISTING PANEL 'LDP', 277/480 V, 3Φ, 4W, ON LOWER LEVEL OF ADMINISTRATION BUILDING.
3. EXISTING 3 #2/0 AL, 2" PVC UNDERGROUND TO REMAIN FROM 3P-100A BREAKER IN EXISTING PANEL 'LDP' IN ADMINISTRATION BUILDING TO EXISTING 3P-100A NON-FUSED SAFETY SWITCH AT BUS STOP. PROVIDE NEW ANTI-OXIDANT COMPOUND FOR TERMINATIONS AT EACH END OF CONDUCTORS AND TORQUE LUGS TO MANUFACTURER'S SPECIFICATION USING A TORQUE WRENCH.
4. LOCATION OF EXISTING MAIN COMMUNICATIONS ROOM ON LOWER LEVEL OF ADMINISTRATION BUILDING.
5. EXISTING 1" PVC UNDERGROUND COMMUNICATION CONDUIT ADMINISTRATION BUILDING TO BUS STOP TO REMAIN. REMOVE EXISTING COAXIAL CABLE AND EXISTING 4 PAIR TELEPHONE CABLE FOR IRRIGATION SPRINKLER CONTROLLERS.
7. PROVIDE NEW FIBER OPTIC CABLE AS REQUIRED BY SIGN MANUFACTURER IN EXISTING 1" CONDUIT COMPLETE FROM NEW ENTRANCE SIGN TO EXISTING MAIN COMMUNICATIONS ROOM IN ADMINISTRATION BUILDING. COORDINATE REQUIREMENTS WITH SIGN SUPPLIER.
7. PROVIDE NEW 4 PAIR, #24 AWG, PE-39 UNDERGROUND TELEPHONE CABLE, TO MATCH EXISTING TELEPHONE CABLE, FOR EXISTING IRRIGATION SPRINKLER CONTROLLER AND RECONNECT EXISTING CIRCUIT. COORDINATE REQUIREMENT WITH SLCC FACILITIES PROJECT MANAGER.

GENERAL NOTES:

1. LOCATIONS OF EXISTING ELECTRICAL EQUIPMENT, OUTLETS, FEEDERS, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
2. TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING STRUCTURE. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE REPAIRS WITH THE GENERAL CONTRACTOR.
3. COORDINATE ALL NEW COMMUNICATIONS WORK WITH SLCC FACILITIES PROJECT MANAGER AND SLCC FACILITIES COMMUNICATIONS DEPARTMENT PRIOR TO BEGINNING WORK.

SYMBOL LIST

SYMBOL	DESCRIPTION
	NEW DUPLEX RECEPTACLE
GFI	NEW RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER
	NEW POWER PANELBOARD, 120/208 VOLT, 3 PHASE
	EXISTING POWER PANELBOARD, 120/208 VOLT, 3 PHASE
	EXISTING POWER PANELBOARD, 277/480 VOLT, 3 PHASE
T	EXISTING TRANSFORMER
	NEW BRANCH CIRCUIT CONCEALED IN WALL OR CEILING
	NEW BRANCH CIRCUIT CONCEALED IN FLOOR OR WALL
	NEW BRANCH CIRCUIT EXPOSED ON WALL OR CEILING
	EXISTING BRANCH CIRCUIT
NF	EXISTING SAFETY SWITCH, 'NF' INDICATES NON-FUSED
2	KEYED NOTE SYMBOL
A2 / E-601	DETAIL NUMBER OR SECTION LETTER / SHEET ON WHICH DETAIL OR SECTION IS SHOWN
WP	INDICATES ITEM IN WEATHERPROOF (NEMA 3R MINIMUM) ENCLOSURE

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CAD DWG FILE: E-102.dwg
DRAWN BY: WBG
CHECKED BY: RGK
DESIGNED BY: WBG

SHEET TITLE
ELECTRICAL SITE PLAN AND SCHEDULES

E-102
6 OF 6